

Title (en)

Side chain polymers and their use for optical components

Title (de)

Seitengruppenpolymere und ihre Verwendung für optische Bauelemente

Title (fr)

Polymères à chaînes latérales et leur emploi pour composants optiques

Publication

EP 0704513 A1 19960403 (DE)

Application

EP 95114686 A 19950919

Priority

DE 4434966 A 19940930

Abstract (en)

Polymers with a poly(meth)acrylate main chain and side chains of formula (I) and (II) are claimed. In the formulae: S<1> and S<2> = O, S or NR1 (with R1 = H, 1-6C alkyl or Ph); T<1> and T<2> = -(CR1R12)n-, opt. with in-chain -O-, -S-, -NR1- or -OSi(R1)2O- (with n = 2-12); Q<1> and Q<2> = -O-, -COO-, -OCO-, -CONR1-, -NR1CO-, -NR1-, -O-Phe-COO- or -O-Phe-CONR1- (with Phe = C6H4); or the combinations S<1>T<1>Q<1> and/or S<2>T<2>Q<2> may also represent a ring of formula (a); R2-R6 = H, halogen, 1-4C alkyl or alkoxy, CF3, nitro, -SO2Me, -SO2NH2 or CN; at least one of these gps. must not be H; R7-R9 = H, 1-6C alkyl, alkoxy, alkylthio, alkylsulphonyl or alkylaminocarbonyl, OH, -OPh, -SPh, halogen, CF3, CCl3, CBr3, nitro, CN, phenylsulphonyl, -COOR1, aminosulphonyl, phenylaminosulphonyl, aminocarbonyl or phenylaminocarbonyl; R10 = H, halogen, 1-6C alkyl or alkoxy, OH, OPh, or 1-4C alkylamino or alkylsulphonylamino; R11 = H, halogen, 1-6C alkyl or alkoxy, OH or OPh; Y = direct bond, -COO-, -OCO-, -CONH-, -NHCO-, -O-, -NH-, -NMe- or -N=N-; X<1> and X<2> = H, OH, SH, CF3, CCl3, CBr3, halogen, CN, nitro, COOR1, 1-6C alkyl, alkylsulphonyl, alkylaminosulphonyl or alkylaminocarbonyl, 5-12C cycloalkyl, 1-12C alkoxy or alkylthio, 6-12C aryl, aryloxy, arylthio or arylsulphonyl, aminosulphonyl, phenylaminosulphonyl, aminocarbonyl, phenylaminocarbonyl, -NR12R13, -NHCOR12, -NHCO2R12, -NHCONR1R2, -NHCOOR12 or -SO2CF3; R12 and R13 = H, 1-4C alkyl or Ph; if R7-R11 = H and ring B is substd. with 1-4C alkyl or alkoxy, nitro or CN, at least one second substit. is present in the system (ring A)-Y-(ring B).

Abstract (de)

Seitengruppenpolymere, deren permanent formanisotrope Seitengruppen laterale Substituenten tragen, eignen sich aufgrund ihrer hervorragenden Eigenschaften besonders gut für optische Bauelemente, die insbesondere in der optischen Datenspeicherung und -übertragung eingesetzt werden können.

IPC 1-7

C09K 19/38; **C08F 20/34**; **C08F 20/30**

IPC 8 full level

G03C 1/73 (2006.01); **C08F 20/22** (2006.01); **C08F 20/30** (2006.01); **C08F 20/34** (2006.01); **C08F 20/38** (2006.01); **C08F 220/34** (2006.01); **C08F 220/36** (2006.01); **C08F 220/38** (2006.01); **C09K 19/38** (2006.01); **G02B 1/04** (2006.01); **G11B 7/244** (2006.01); **G11B 7/253** (2006.01); **G11B 7/246** (2006.01); **G11B 7/2467** (2013.01)

CPC (source: EP KR US)

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